	Application No.	**Applicant(s)**	
Notice of Allowability	10/045,927	BERG ET AL.	
	Examiner	**Art Unit**	
	Nasser G. Moazzami	2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *02/28/2005 and interview with applicant's representative on 04/20/2005 and 04/22/2005.*.

2. ☒ The allowed claim(s) is/are *1-9*.

3. ☒ The drawings filed on *09 January 2002* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *attached* .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

NASSER MOAZZAMI
PRIMARY EXAMINER

04/25/05

DETAILED ACTION

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Michael A. Dryja (Reg. No. 39,662) on 04/20/2005 and 04/22/2005.

The application has been amended as follows:

In the claims

1. (Currently amended)   A method for maintaining cache coherence in a

multiprocessor system having a plurality of nodes, each node having at least

one cache, a memory device local to the node, and at least one processor

device, the method comprising:

storing information regarding the state of data exclusively in an interconnect

communicatively connecting said nodes with one another, such that the interconnect

is a sole repository of cache coherence information within the multiprocessor system;

checking said stored information to determine the location of the most current

copy of a requested portion of data, in response to a request by a requesting node for

the requested portion of data;

retrieving said current copy of requested portion of data and directing said

data to the requesting node;

checking said stored information to determine the location of the requested

data <u>portion</u>; and

<u>simultaneous to the retrieval of said current copy of the requested portion of</u>

<u>data</u> directing the system to send said requested data <u>portion</u> to the requesting node

without going through said interconnect.

2. (Currently amended)   A multiprocessor computer system comprising:

a plurality of nodes, each node including at least one processor and portion of

a shared distributed system memory coupled to said processor; and

an interconnect both communicatively connecting said nodes with one another

and exclusively storing location<u>s of the most current copies</u> and state information of

data stored in the memory of the nodes such that the interconnect is a sole repository

of cache coherence information within the multiprocessor computer system[.]<u>, said</u>

<u>interconnect simultaneously provides requests to first and second nodes, wherein</u>

<u>the results of the request from the second node is communicated to the first node</u>

<u>without going through said interconnect.</u>

8. (Currently amended)   A method for maintaining cache coherence in a

multiprocessor system having a plurality of nodes, each node having at least one

cache, a memory device local to the node and at least one processor device,

the memory and processor device being coupled to form a complete subsystem,

the method comprising:

storing information regarding the state of data exclusively in a first part of

an interconnect communicatively connecting said nodes with one another, such

that the interconnect is a sole repository of cache coherence information within the

multiprocessor system;

said first part checking said stored information to determine the location of

the most current copy of a requested portion of data, in response to a request by

a requesting node for data;

said first part directing a second part of the interconnect to forward the

said most current copy of said data to the requesting node; and

said second part retrieving said current copy of requested portion of

data and simultaneously directing said data to a target node without going

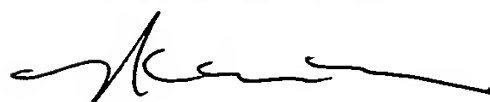through said interconnect.

Conclusion

2.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nasser G. Moazzami whose telephone number is (571)

272-4195. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

3.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

NASSER MOAZZAMI
PRIMARY EXAMINER

04/25/2005